

# United States Court of Appeals for the Federal Circuit

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OIP TECHNOLOGIES, INC.,  
*Plaintiff-Appellant*

v.

AMAZON.COM, INC.,  
*Defendant-Appellee*

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2012-1696

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Appeal from the United States District Court for the Northern District of California in No. 12-CV-1233, Judge Edward M. Chen.

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Decided: June 11, 2015

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MATTHEW D. POWERS, Tensegrity Law Group, LLP, Redwood City, CA, argued for plaintiff-appellant. Also represented by STEVEN CHERENSKY, PAUL EHRLICH, STEFANI SMITH, AARON MATTHEW NATHAN.

GREGORY G. GARRE, Latham & Watkins LLP, Washington, DC, argued for defendant-appellee. Also represented by GABRIEL BELL, MATTHEW J. MOORE; RICHARD GREGORY FRENKEL, Menlo Park, CA; JEFFREY H. DEAN, Amazon.com., Inc., Seattle, WA.

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Before TARANTO, MAYER, and HUGHES, *Circuit Judges*.

Opinion for the court filed by *Circuit Judge* HUGHES.

Concurring opinion filed by *Circuit Judge* MAYER.

HUGHES, *Circuit Judge*.

OIP Technologies alleges that Amazon.com infringes a patent that relates to a method of price optimization in an e-commerce environment. The district court granted judgment on the pleadings, concluding that the patent does not claim patentable subject matter under 35 U.S.C. § 101. Because we agree with the district court that the patent-in-suit claims no more than an abstract idea coupled with routine data-gathering steps and conventional computer activity, we affirm.

## I

In March 2012, OIP Technologies filed suit against Amazon.com alleging infringement of U.S. Patent No. 7,970,713, which claims computer-implemented methods for “pricing a product for sale.” *See, e.g.*, ’713 patent col. 16 ll. 2–39 (claim 1). The ’713 patent explains that traditionally merchandisers manually determine prices based on their qualitative knowledge of the items, pricing experience, and other business policies. In setting the price of a particular good, the merchandiser estimates the shape of a demand curve for a particular product based on, for example, the good itself, the brand strength, market conditions, seasons, and past sales. *Id.* at col. 1 ll. 62 – col. 2 l. 2; col. 2 ll. 62–66. The ’713 patent states that a problem with this approach is that the merchandiser is slow to react to changing market conditions, resulting in an imperfect pricing model where the merchandiser often is not charging an optimal price that maximizes profit. *Id.* at col. 2 ll. 13–19.

Accordingly, the ’713 patent teaches a price-optimization method that “help[s] vendors automatically

reach better pricing decisions through automatic estimation and measurement of actual demand to select prices.”

*Id.* at col. 8 l. 15–17. Claim 1 recites:

1. A method of pricing a product for sale, the method comprising:

testing each price of a plurality of prices by sending a first set of electronic messages over a network to devices;

wherein said electronic messages include offers of said product;

wherein said offers are to be presented to potential customers of said product to allow said potential customers to purchase said product for the prices included in said offers;

wherein the devices are programmed to communicate offer terms, including the prices contained in the messages received by the devices;

wherein the devices are programmed to receive offers for the product based on the offer terms;

wherein the devices are not configured to fulfill orders by providing the product;

wherein each price of said plurality of prices is used in the offer associated with at least one electronic message in said first set of electronic messages;

gathering, within a machine-readable medium, statistics generated during said testing about how the potential customers responded to the offers, wherein the statistics include number of sales of the product made at each of the plurality of prices;

using a computerized system to read said statistics from said machine-readable medium and to automatically determine, based on said statistics, an estimated outcome of using each of the plurality of prices for the product;

selecting a price at which to sell said product based on the estimated outcome determined by said computerized system; and

sending a second set of electronic messages over the network, wherein the second set of electronic messages include offers, to be presented to potential customers, of said product at said selected price.

*Id.* at col. 16 ll. 2–39. Thus, claim 1 has the following relevant limitations: (1) testing a plurality of prices; (2) gathering statistics generated about how customers reacted to the offers testing the prices; (3) using that data to estimate outcomes (i.e. mapping the demand curve over time for a given product); and (4) automatically selecting and offering a new price based on the estimated outcome. The dependent claims add various computer elements such as including webpages as advertisements in the second set of messages and generating statistics. *See, e.g., id.* at col. 16 ll. 56–60 (claim 5), col. 18 ll. 1–22 (claims 17-18).

Amazon filed a motion to dismiss OIP's complaint, arguing that the '713 patent is drawn to patent-ineligible subject matter. The district court granted Amazon's motion, finding that the asserted claims merely use a general-purpose computer to implement the abstract idea of "price optimization" and is therefore ineligible for patent protection under 35 U.S.C. § 101. J.A. 22. The district court reasoned that without the "insignificant computer-based limitations," the claims merely "describe what any business owner or economist does in calculating a demand curve for a given product." J.A. 28.

OIP appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

## II

We apply regional circuit law to the review of motions to dismiss. *K-Tech Telecomms., Inc. v. Time Warner Cable, Inc.*, 714 F.3d 1277, 1282 (Fed. Cir. 2013). The Ninth Circuit reviews appeals of a dismissal for failure to state a claim under Federal Rule of Civil Procedure 12(b)(6) de novo. *Id.* Our review "is generally limited to the face of the complaint, materials incorporated into the complaint by reference, and matters of judicial notice." *Id.* Patent eligibility under 35 U.S.C. § 101 is an issue of law reviewed de novo. *Accenture Global Servs. v. GuideWire Software, Inc.*, 728 F.3d 1336, 1340–41 (Fed. Cir. 2013).

A patent may be obtained for "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." 35 U.S.C. § 101. The Supreme Court has "long held that this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable." *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013) (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct.

1289, 1293 (2012)). Under the now familiar two-part test described by the Supreme Court in *Alice*, “[w]e must first determine whether the claims at issue are directed to a patent-ineligible concept,” such as an abstract idea. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2355 (2014). If so, we must then “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo*, 132 S. Ct. at 1298, 1297).

Here, the claims are directed to the concept of offer-based price optimization. Claim 1 broadly recites a “method of pricing a product for sale,” and the specification describes the invention as an “automatic pricing method and apparatus for use in electronic commerce.” ’713 patent col. 2 ll. 49–50; *id.* at col. 1 ll. 27–31. This concept of “offer based pricing” is similar to other “fundamental economic concepts” found to be abstract ideas by the Supreme Court and this court. *See, e.g., Alice*, 134 S. Ct. at 2357 (intermediated settlement); *Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (risk hedging); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014) (using advertising as an exchange or currency); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (data collection); *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1346 (Fed. Cir. 2013) (generating tasks in an insurance organization). And that the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract. *See buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (collecting cases); *Accenture*, 728 F.3d at 1345.

Beyond the abstract idea of offer-based price optimization, the claims merely recite “well-understood, routine conventional activit[ies],” either by requiring conventional

computer activities or routine data-gathering steps. *Alice*, 134 S. Ct. at 2359 (quoting *Mayo*, 132 S. Ct. at 1294) (alterations in original). Considered individually or taken together as an ordered combination, the claim elements fail “to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Id.* at 2357 (quoting *Mayo*, 132 S. Ct. at 1294, 1298). For example, claim 1 recites “sending a first set of electronic messages over a network to devices,” the devices being “programmed to communicate,” storing test results in a “machine-readable medium,” and “using a computerized system . . . to automatically determine” an estimated outcome and setting a price. Just as in *Alice*, “all of these computer functions are ‘well-understood, routine, conventional activit[ies]’ previously known to the industry.” *Alice*, 134 S. Ct. at 2359 (quoting *Mayo*, 132 S. Ct. at 1294) (alterations in original); see also *buySAFE*, 765 F.3d at 1355 (“That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive.”). Moreover, the claims are exceptionally broad and the computer implementation limitations do little to limit their scope. Indeed, the specification makes clear that this “programming” and the related computer hardware “refers to any sequence of instructions designed for execution on a computer system.” ’713 patent col. 6 ll. 31–33.

At best, the claims describe the automation of the fundamental economic concept of offer-based price optimization through the use of generic-computer functions. Both the prosecution history and the specification emphasize that the key distinguishing feature of the claims is the ability to automate or otherwise make more efficient traditional price-optimization methods. For example, the specification states that a core advantage of the invention is reducing the “extremely high testing costs” of “[b]rute force live price testing.” *Id.* at col. 3 ll. 10–11. Likewise,

the patentee distinguished traditional pricing research, by emphasizing that “the techniques described in [the prior art] generally cost more and take more time, and are less accurate than the technique recited in [the claims].” J.A. 393. And “automatically determining an estimated outcome using each of the plurality of prices for the product . . . means that pricing decisions are made with more granularity.” J.A. 525. But relying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible. *See Alice*, 134 S. Ct. at 2359 (“use of a computer to create electronic records, track multiple transactions, and issue simultaneous instructions” is not an inventive concept); *Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Can. (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) (a computer “employed only for its most basic function . . . does not impose meaningful limits on the scope of those claims”); *cf. DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1258–59 (Fed. Cir. 2014) (finding a computer-implemented method patent eligible where the claims recite a specific manipulation of a general-purpose computer such that the claims do not rely on a “computer network operating in its normal, expected manner”).

Nor does the claims’ recitation of “present[ing] [offers] to potential customers” and “gathering . . . statistics generated during said testing about how the potential customers responded to the offers” provide a meaningful limitation on the abstract idea. These processes are well-understood, routine, conventional data-gathering activities that do not make the claims patent eligible. *See Alice*, 134 S. Ct. at 2359; *Mayo*, 132 S. Ct. at 1298. Like the claims in *Mayo*, which added only the routine steps of administering medication and measuring metabolite levels for the purposes of determining optimal dosage, here the addition of steps to test prices and collect data based on customer reactions does not add any meaningful



limitations to the abstract idea. *Mayo*, 132 S. Ct. at 1297–98; *see also Alice*, 134 S. Ct. at 2357 (“Simply appending conventional steps, specified at a high level of generality,’ was not ‘*enough*’ to supply an ‘inventive concept.’”) (quoting *Mayo*, 132 S. Ct. at 1300, 1297, 1294); *see also Ultramercial*, 772 F.3d at 716 (“[T]he steps of consulting and updating an activity log represent insignificant ‘data-gathering steps,’ . . . and thus add nothing of practical significance to the underlying abstract idea.”) (citations omitted).

On appeal OIP focuses its arguments on comparing the claimed invention to the invention found patent eligible in *Diamond v. Diehr*, 450 U.S. 175 (1981). However, we must read *Diehr* in light of *Alice*, which emphasized that *Diehr* does not stand for the general proposition that a claim implemented on a computer elevates an otherwise ineligible claim into a patent-eligible improvement. *Alice*, 134 S. Ct. at 2358. Rather, *Diehr* involved “a ‘well-known’ mathematical equation . . . used . . . in a process designed to solve a technological problem in ‘conventional industry practice.’” *Id.* (quoting *Diehr*, 450 U.S. at 177, 178). Just as *Diehr* could not save the claims in *Alice*, which were directed to “implement[ing] the abstract idea of intermediated settlement on a generic computer”, *Alice*, 134 S. Ct. at 2358–59, it cannot save OIP’s claims directed to implementing the abstract idea of price optimization on a generic computer. *See id.* at 2359–60 (“Nor do [the claims] effect an improvement in any other technology or technical field.”) (citing *Diehr*, 450 at 177–78).

### III

We have considered all of OIP’s arguments and find them unpersuasive. Because the ’713 patent claims the abstract idea of offer-based price optimization and lacks an “inventive concept” sufficient to “transform” the

claimed subject matter into a patent-eligible application of that idea, we affirm.

**AFFIRMED**

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MAYER, *Circuit Judge*, concurring.

I write separately to address the argument advanced by OIP Technologies, Inc. that the district court erred in resolving the patent eligibility issue on the pleadings. Failure to recite statutory subject matter is the sort of “basic deficiency,” that can, and should, “be exposed at the point of minimum expenditure of time and money by the parties and the court,” *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 558 (2007) (citations and internal quotation marks omitted). Addressing 35 U.S.C. § 101 at the outset not only conserves scarce judicial resources and spares litigants the staggering costs associated with discovery and protracted claim construction litigation, it also works to stem the tide of vexatious suits brought by the owners of vague and overbroad business method patents. Accordingly, where, as here, asserted claims are plainly directed to a patent ineligible abstract idea, we have repeatedly sanctioned a district court’s decision to dispose of them on the pleadings. *See, e.g., Content Extraction & Transmis-*

*sion LLC v. Wells Fargo Bank*, 776 F.3d 1343, 1349 (Fed. Cir. 2014); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 717 (Fed. Cir. 2014); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1352 (Fed. Cir. 2014). I commend the district court's adherence to the Supreme Court's instruction that patent eligibility is a "threshold" issue, *Bilski v. Kappos*, 561 U.S. 593, 602 (2010), by resolving it at the first opportunity.